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10/021,388	12/06/2001	Dean A. Klein	MTIPAT.073DV1	3167

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EXAMINER

DINH, SON T

ART UNIT PAPER NUMBER

2824

DATE MAILED: 06/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/021,388

Applicant(s)

KLEIN, DEAN A.

Examiner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☒ Other: *East search history*.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the bus" in line 11. There is insufficient antecedent basis for this limitation in the claim. Also, "the chip select signal" has no antecedent basis. Further the recitation of "the memory integrated circuit is selectively decoupled from the bus in response to a change in state of the chip select signal" makes the scope of this claim unclear and indefinite. Note that nowhere in claim 1 recites a connection of a switch between the memory integrated circuit and a bus, then how a that switch could perform the function of decoupling the bus from the memory integrated circuit. Claim 1 only recited the connection of a switch between input/output terminals and an input buffer register.

Regarding claim 4, there is no proper antecedent basis for "said logic circuit" (line 25).

Claims 5-6 are rejected because of their dependency of the rejected claim.

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Regarding claim 7, the terminology "said logic circuit" (line 11) lacks a proper antecedent basis.

Regarding claim 8, the terminologies "the bus" (lines 20-21), "the chip select signal" (line 21), "said logic circuit" (line 23) lack antecedent bases. Also, the recitation of "the memory integrated circuit is selectively decoupled from the bus in response to a change in state of "the chip select signal" makes the scope of the claim unclear and indefinite for the reasons set forth in the rejection of claim 1 above.

Regarding claim 9, "the transfer fate" (line 27) should be changed to --the transfer gate--.

### ***Specification***

The disclosure is objected to because of the following informalities:

The abstract of the disclosure is objected to because the terminology "the invention comprises" should not be used in an abstract.. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

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The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The specification and the drawings provide no support for "an input buffer register" as recited claims 1, 3-4, 7-8. Also, there is no support for "means for disabling" and "means for enabling" as recited in claim 11. The specification and the drawing (figure 10) only disclose a single means (64, figure 10) that perform both function of enabling and disabling a transfer gate, not two different and separate means for performing two different functions as recited in the claim.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3-8, 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention because:

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The specification and drawings do not provide supports for "an input buffer register" register recited in claims 1, 4, 7-8. Note that line 4, page 10 of the specification and figures 7 and 10 only disclose "an input buffer" connected to the output of the switch, not "an input buffer register". It is also noted that "a input buffer" and "an input buffer register" is two different device having different functions (buffering data and temporarily storing data) in a memory device, and the input buffer 104 in figure 10 of the instant application is only a regular input data buffer.

Regarding claim 11, the specification and the drawings fail to provide support to "means for disabling a transfer gate" and "means for enabling a transfer gate" as recited in claim 11. Note that the specification and the drawings (figures 2, 3, 4, 5-6, 10) only disclose a single means (a switch, 14, figure 2; 26, figure 3; 33, figure 4; 64, figures 5 and 6; 64, figure 10) for performing the functions of enabling (when memory access are occurring) and disabling a data bus from the integrated circuit (when no memory access are occurring).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 2-7, 9-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Iwamoto et al (U.S. Patent No 5,764,590).

For the purpose of this rejection, "the input buffer register" would be considered as "the input buffer" as disclosed in the specification and the drawing, and an input/output terminal would be considered as a contact (as defined by the applicant), and a selector would be considered as a switch because this selector performs the function of connecting and disconnecting (enabling and disabling) a data bus from an input buffer.

Regarding claims 2-3, figure 9 (also see figure 11 for more detail) of Iwamoto et al discloses a memory device comprising a contact (112, 113) connects to a data bus (the bus that connected 112 or 113 to the switch 904 (selector)), a switch (904) having input connected to the contact 112 (or 113) and an output connected to an input buffer (905a, 905b). See column 12, lines 4-15.

Regarding claims 4-5, 7, element 501 (figure 5) is one control terminal, and 502 (figure 5) is a logic circuit that is configured to selectively open the switch 904 (figure

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11). Also, elements 1101 and 1102 in figure 11 would be a control portion as claimed in claim 5.

Regarding claim 6, the circuit 103 in figure 10B of Iwamoto et al has one control terminal (ext/WE) for receiving memory access control signal (WE) and coupled to the control terminal 501.

Regarding claims 9-10, the switch 904 is a transfer gate and when input buffer 905a is not selected (no access is occurring), then the step of disabling is performed, and when input buffer a is selected (access is occurring), then the step of enabling is performed. The step of transferring data in claim 10 is performed by switch 904 (or transfer gate 904).

Regarding claim 11, for the purpose of this rejection, means for enabling and means for disabling would be considered as a single means that could perform both functions (see the 112 rejection above). Then switch 904 would be means for performing the function of enabling a transfer gate when there is an access, and disabling when there is no access. See the rejection applied to claims 9-10.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



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Claims 1 and 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamoto et al in view of Miyai et al (U.S. Patent No 5,537,584).

Iwamoto et al applied as above. The only difference between Iwamoto et al and claim 8 is that Iwamoto et al is silent on the use of circuit or a state decoder for generating a chip select signal. Miyai et al teaches that the use of a circuit (22 figure 8) for generating a chip select signal so as to enable the operation of the integrated circuit is well known in the art. The element 22 of Miyai et al would be considered as a state decoder since this circuit could perform the function of generating a chip select signal.

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify Iwamoto et al by using a state decoder for generating a chip select signal which is applied to the integrated circuit so as to enable the operation of the integrated circuit as evidenced by Miyai et al.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

\_Kozlik et al disclose a memory device having a switch connecting to a data bus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son t Dinh whose telephone number is 703-308-4120. The examiner can normally be reached on 8am-5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on 703-308-2816. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7724 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

S. Dinh  
June 9, 2003



**Son T. Dinh**  
**Primary Examiner**